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ABSTRACT

This guide to the literature on cellular radio is not intended to be a comprehensive bibliography. It is designed to provide the reader with a set of resources that can be used to focus on the topic. The document lists the subject headings used by the Library of Congress in cataloging information on cellular radio. It also contains citations of materials categorized as: (1) brief introductions; (2) basic texts; (3) additional titles; (4) handbooks and encyclopedias; (5) other bibliographies; (6) conference proceedings; (7) government publications; (8) abstracting and indexing services; (9) journal articles; (10) technical reports; and (11) additional sources of information. (TW)

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CELLULAR RADIO

A Brief Guide to Materials in the Library of Congress
Compiled by George D. Havas

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SCOPE: Geographic areas in which there is much mobile radio telephone activity have been subdivided into smaller units, called cells (hence the name cellular), graphically represented as a honeycomb pattern. Each cell has its own receiver-transmitter which receives calls from mobile radio telephones in its area and transmits them to a telephone center, from which they can be routed to regular telephones, or to other mobile units. Calls from stationary telephones to mobile units are, likewise, transmitted from telephone central through the cell's receiver-transmitter. Fast computers make the operation possible by switching, or routing, the calls to open, available, communication channels, or frequencies, and by switching the calls of the moving units from one cell's receiver-transmitter to a neighboring one as they travel along, thereby providing stronger signals and optimal reception. This guide lists information sources pertaining to cellular radio which are available in the collections of the Library of Congress. Not intended to be a comprehensive bibliography, this compilation is designed--as the name of the series implies--to put the reader "on target."

INTRODUCTIONS

- Crump, Stuart. Cellular telephones: a layman's guide. Blue Ridge Summit, Pa., Tab Books, c1985. 146 p. TK6570.M6C76 1985*
- Free, John. Call from your car. In Science year. 1985. Chicago, World Book, c1984. p. 259. Q9.S33 1985
- Garret, J. M. Cellular mobile radio. In Land mobile radio systems. Edited by R. J. Holbeche. London, Peter Peregrinus on behalf of the Institution of Electrical Engineers, c1985. (IEE telecommunications series, 14) p. 206-215. TK6570.M6L27 1985

*Available in reference collection, Science Reading Room

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Huff, Duane L. Cellular radio. In Science annual. 1985. Danbury, Conn., Grolier, cl984. p. 328-334. Q162.S396 1985*

MacDonald, Verne H. Mobile radio. In McGraw-Hill yearbook of science and technology. 1985. New York, cl984. p. 277-279. Q121.M312 1985*

Includes a paragraph and bibliography about United States rules and standards pertaining to cellular radio.

SUBJECT HEADINGS used by the Library of Congress, under which materials on cellular radio can be located in most card, book and online catalogs, include the following:

CELLULAR RADIO (Highly relevant)
 CELLULAR RADIO EQUIPMENT INDUSTRY (Highly relevant)
 MOBILE COMMUNICATIONS SYSTEMS (Relevant)
 MOBILE RADIO STATIONS (Relevant)
 RADIO SUPPLIES INDUSTRY (More general)

BASIC TEXTS

Crump, Stuart. You can afford a car telephone: your complete guide to cellular telephone: how to take charge of your life. Fairfax, Va., FutureComm Publications, cl985. 139 p. TK6570.M6C78 1985

Lee, William C. Y. Mobile communications design fundamentals. Indianapolis, Ind., H. W. Sams, cl986. 303 p. TK6570.M6L36 1986

Noll, Edward M. Landmobile and marine radio technical handbook. Indianapolis, Ind., H. W. Sams, cl985. 576 p. TK6570.M6N65 1985*

Prentiss, Stan. Introducing cellular communications: the new mobile telephone system. Blue Ridge Summit, Pa., Tab Books, cl984. 216 p. TK6570.M6P74 1984*

Seybold, Andrew M., and Mel A. Samples. Cellular mobile telephone guide. Indianapolis, Ind., H. W. Sams, cl986. 202 p. HE8817.S49 1986

RELATED TEXTS

Communications for a mobile society: an assessment of new technology. Edited by Raymond Bowers, Alfred M. Lee, Cary Hershey and others. Beverly Hills, Calif., Sage Publications, cl978. 432 p. TK6570.M6C65

Duff, William G. A handbook on mobile communications. 2nd ed. Gainesville, Va., Don White Consultants, Inc., cl980. 289 p. (in various pagings) TK6570.M6D77 1980

Land-mobile communications engineering. Edited by Dennis Bodson, George F. McClure, Samuel R. McConoughey. New York, IEEE Press, cl984. 382 p. (IEEE Press selected reprint series) TK6570.M6L26 1984

Mobile communications: developments & regulations: proceedings of the 1984 international conference. Pinner, Middlesex, U.K., Online Publications, c1984. 172 p. TK6570.M6M59 1984

Proceedings of a conference on mobile communications sponsored by Online Conferences Ltd. and held in London, March 1984.

MARKET SURVEYS

Cellular systems and alternatives for mobile radio communications. New York, Frost & Sullivan, c1980. 258 p. HD9696.R363U63 1980
"A743."

The Cellular marketplace. Bethesda, Md., Phillips Pub., c1984. 475 p. HD9696.R363U62 1984

Cellular mobile radio. Norwalk, Conn., International Resource Development Inc., c1985. 190 p. (International Resource Development Inc. Report, no. 671) HD9696.R362C45 1985

Cellular mobile radio: markets and strategies for providing goods and services. Eve Oppenheim, project analyst. Stamford, Conn., Business Communications Co., c1985. 207 p. (Business opportunity report, G-084) HD9696.R363U625 1985

Cordless telephones and the coming cellular connection. Norwalk, Conn., International Resource Development Inc., c1983. 171 p. (International Resource Development Inc. Report, no. 536) HD9697.T452C67 1983

Hester, Edward, and Robert McLean. Cellular & other mobile communications equipment. Cleveland, Ohio, Predicasts, 1984. 83 p. HD9696.R363U637 1984
"3543."

Leibowitz, Dennis, Eric Buck, and James McCabe. The cellular communications industry. New York, Donaldson, Lufkin & Jenrette, c1985. 67 p. HD9696.R363U65 1985

Mobile communications update. Boston, Mass., Yankee Group, c1985. 76 p. (Telecommunications analysis & research, v. 4 (1984)) HD9696.R363U66 1985

DIRECTORY

National mobile telephone service directory. Palo Alto, Calif., Communications Publishing Service, c1984. 51 p. TK6570.M6N37

CONFERENCE PROCEEDINGS

The Applications, benefits, and experience of cellular radio: conference transcript, 6th October 1983, London. London, Oyez Scientific and Technical Services, 1983. 154 p. TK6570.M6A67 1983

Cellular communications '84: proceedings of the industry conference,
Chicago, November 1984. Pinner, Middlesex, U.K., New York, Online
Publications, c1984. 294 p. TK6570.M6C45 1984

IEEE Vehicular Technology Conference (35th, 1985, Boulder, Colo.).
35th IEEE Vehicular Technology Conference, 21-23 May 1985, Boulder,
Colorado: efficiency, conservation, and productivity. Sponsored by
the IEEE Vehicular Technology Society and the University of Colorado,
Boulder. New York, Institute of Electrical and Electronics Engi-
ners; Piscataway, N.J., copies from IEEE Service Center, c1985.
319 p. TK6570.M6I223 1985
"85CH2037-0."

Mobile radio systems and techniques: international conference, 10-13
September 1984. Organised by the Electronics Division of the Insti-
tution of Electrical Engineers [and others]. Venue: University of
York. London, IEE, c1984. 229 p. (IEE Conference publication,
no. 238) TK6570.M6M595 1984

National Conference on Cellular Radio (1st, 1985, London, England).
Cellular radio in the UK, 1985: full proceedings of the First
National Conference on Cellular Radio, held in London, 7th and 8th
February 1985. London, Oyez Scientific & Technical Services,
c1985. 262 p. TK6570.M6N36 1985

ABSTRACTING AND INDEXING SERVICES that index relevant journal articles and
other literature are listed below. Some suggested terms are given as aids
in searching.

Applied Science & Technology Index (1913-) Z7913.I7*
See: Radio Telephone, Portable--Cellular Systems
Land Mobile Radio Services

Computer & Control Abstracts (Science Abstracts--Series C) (1966-)
QA76.C548*
See: Cellular Radio

Electrical & Electronics Abstracts (Science Abstracts--Series B)
(1898-) Q1.S3* and Z5833.E37*
See: Cellular Radio
Mobile Radio Systems
Telecommunication--Radio Links and Equipment--Mobile Radio
Systems

Engineering Index (1884-) Z5851.E62*
See: Radio Systems, Mobile--Cellular Technology

Magazine Index (Jan. 1982-) Available on film/ROM reader
See: Cellular Radio
Mobile Communication Systems
Radiotelephone

Note: Consult reference librarian for location of abstracting and indexing
services in the Science Reading Room

Readers' Guide to Periodical Literature (1900-) AI3.R45
 See: Cellular Radio

JOURNALS that often contain articles on cellular radio are

Communications News TK5101.A1C64
Datapro Reports on Telecommunications, v. 3 Computer shelf*
IEEE Transactions on Communications TK5101.A1I2
IEEE Transactions on Vehicular Technology TK7882.M6I2
Radio-Electronics TK6540.R34
Telocator TK6570.M6T45

REPRESENTATIVE JOURNAL ARTICLES

- Beeferman, Steven. Packet radio can be a cost-effective alternative to dedicated land lines for datacomm networks. Communications news, v. 23, Aug. 1986: 36-38. TK5101.A1C64
- Chan, Gerald K., and Samy A. Mahmoud. A spectrum-efficient interference-free frequency allocation scheme for a cellular radio system. IEEE transactions on vehicular technology, v. VT-35, Feb. 1986: 15-21. TK7882.M6I2
- Ehrlich, Nathan, and William Sperber. Cellular mobile telephone environment. IEEE aerospace and electronic systems magazine, v. 1, Apr. 1986: 27-31. uncataloged
- Gunnerson, Ronnie. Cellular takes off in L.A. Telocator, v. 10, June 1986: 20-21, 23, 26. TK6570.M6T45
- Huff, Duane L. Cellular radio. Technology review, v. 86, Nov./Dec. 1983: 53-62. T171.M47
- Kobb, Ben. The new world of communications. Radio-electronics, v. 57, Sept. 1986: 49-53. TK6540.R34
- Lilly, Susan. Cellular modems can transmit data anywhere. PC week, v. 3, Jan. 7, 1986: 135. QA75.5.P37
- Ware, Harold. The competitive potential of cellular mobile telecommunications. Public utilities fortnightly, v. 111, Feb. 3, 1983: 28-35. K16.U23 Law

TECHNICAL REPORTS and other types of literature are indexed in the following guides:

Government Reports Announcements & Index (1946-) Z7916.G78*
 See: Cellular Radio
 Mobile Communication Systems

Scientific and Technical Aerospace Reports (1963-) TL500.S35*
 See: Mobile Communication Systems

SELECTED TECHNICAL REPORTS

Cellular radio. March 1985-March 1986. Citations from INSPEC: information services for the physics and engineering communities data base. Springfield, Va., National Technical Information Service, 1986. 1 v. Not Available in LC
 "PB86-859683."

Cellular system mobile station-land station compatibility specification. Prepared by the Electronic Industries Association for the Federal Communications Commission. Washington, Technical Standards Branch, Office of Science & Technology, Federal Communications Commission, Apr. 1981. 65 p. (OST bulletin, no. 53) PB82-185059**

Cooper, George R., and Ray W. Nettleton. Spectral efficiency in cellular land-mobile communications: a spread-spectrum approach. Final report. May 15, 1977 to Oct. 31, 1978. Prepared for the National Science Foundation by Purdue University, School of Engineering. Washington, Engineering and Applied Science, National Science Foundation, 1978. 225 p. PB82-133034**
 "NSF/RA-780919."

SELECTED MATERIALS available in the Science Reading Room pamphlet boxes include:

All about cellular telephones. Datapro reports on telecommunications, v. 3, Apr. 1986: TC27-004B-101--TC27-004B-118.

Includes a list of cellular telephone vendors, with addresses and telephone numbers, and detailed, organized information and specifications of forty-one cellular telephone models.

For latest update, see Datapro notebook in Science Reading Room.

Cooper, George R., and Ray W. Nettleton. Cellular mobile technology: the great multiplier. IEEE spectrum, v. 20, June 1983: 30-37.

Eklundh, Berth. Channel utilization and blocking probability in a cellular mobile telephone system with directed retry. IEEE transactions on communications, v. COM-34, Apr. 1986: 329-337.

Gibson, Stephen W. The technology in detail. In his Cellular mobile radiotelephones. Englewood Cliffs, N.J., Prentice-Hall, c1987. p. 25-45.

The Impending cellular radio explosion. Telecommunications, v. 16, Oct. 1982: 21-24, 77.

Lilly, Susan. Cellular modems show wide promise, narrow use. PC week, v. 3, Jan. 1986: 132, 134.

McKean, Kevin. Faster, better mobile phones. Discover, v. 5, May 1984: 88-90.

Naegele, Tobias. Encryption foils cellular snooping. Electronics, v. 59, June 23, 1986: 20.

Ogawa, Eiichi, and Akio Satoh. Propagation path visibility estimation for radio local distribution systems in built-up areas. IEEE transactions on communications, v. COM-34, July 1986: 721-724.

Stern, Morton, and Victor Graziano. Advantages of a sector-receive cellular plan. Telephony, v. 210, June 9, 1986: 73-75.

Trucking firm uses mobile-radio data terminals to communicate between drivers and dispatchers. Communications news, v. 23, Aug. 1986: 39.

Users are increasing and prices are dropping as cellular phone service continues its growth. Communications news, v. 23, Aug. 1986: 40.

AN ADDITIONAL SOURCE OF INFORMATION

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